

CLAIMS

What is claimed is:

1. A method of Maintenance Power Control (MPC) for a subscriber unit (SU) which conducts wireless communication with a base station in a wireless communication system, the method comprising:

providing a transmitter having an awake phase for transmitting signals to a base station which are initialized at a selected initial power level and a powered down sleep phase;

when in said sleep phase, periodically activating the transmitter to transmit a status signal; and

adjusting the selected initial power level downwardly when a reply signal is received and upwardly when no reply signal is received within a predetermined time period of the transmission of a status signal whereby the selected initial power level is maintained at a level for efficient system communications.

2. The method of claim 1 wherein the periodically activating the transmitter to transmit a status signal is for periods of no more than 10 seconds.

3. The method of claim 1 wherein the periodically activating the transmitter to transmit a status signal is a random period which averages no more than 10 seconds.

4. The method of claim 3 wherein the selected initial power level is adjusted both upwardly and downwardly in increments of 0.5 dB.

5. The method of claim 4 for a SU of a spread spectrum communication system using code division multiple access wherein the status signal is a symbol length spreading code sent on a status channel of a spread spectrum communication signal and the reply signal is a symbol length spreading code sent on a check-up channel of a spread spectrum communication signal.

6. The method of claim 5 wherein the predetermined time period is 3ms.
7. The method of claim 1 wherein the selected initial power level is adjusted in increments of 0.5 dB.
8. The method of claim 1 for a SU of a spread spectrum communication system using code division multiple access wherein the status signal is a symbol length spreading code sent on a status channel of a spread spectrum communication signal and the reply signal is a symbol length spreading code sent on a check-up channel of a spread spectrum communication signal.
9. The method of claim 8 wherein the predetermined time period is 3ms.
10. The method of claim 8 wherein the selected initial power level is adjusted in increments of 0.5 dB.
11. A subscriber unit (SU) having Maintenance Power Control (MPC) for wireless communication with a base station in a wireless communication system, the SU comprising:
 - a transmitter having an awake phase for transmitting signals to a base station which are initialized at a selected initial power level and a powered down sleep phase;
 - a receiver and associated MPC circuitry for controlling the selected initial power level of said transmitter;
 - said transmitter, when in said sleep phase, configured to become periodically active to transmit a status signal; and
 - said receiver and associated MPC circuitry configured to adjust the selected initial power level downwardly when a reply signal is received and upwardly when no reply signal is received within a predetermined time period whereby the selected initial power level is maintained at a level for efficient system communications.

12. The SU of claim 11 for a spread spectrum communication system using code division multiple access wherein said transmitter is configured to transmit status signals as symbol length spreading codes sent on a status channel of a spread spectrum communication signal and said receiver is configured to receive reply signals as symbol length spreading codes sent on a check-up channel of a spread spectrum communication signal.

13. The SU of claim 12 wherein said transmitter is configured to periodically activate to transmit a status signal in a random period which averages no more than 10 seconds.

14. The SU of claim 11 for a spread spectrum communication system using code division multiple access wherein said transmitter is configured to transmit status signals as symbol length spreading codes sent on a status channel of a spread spectrum communication signal and said receiver and associated MPC circuitry is configured to adjust the selected initial power level both upwardly and downwardly in increments of 0.5 dB.